

REMARKS

In the Office Action¹ mailed March 21, 2007, the Examiner rejected claims 1-23 under 35 U.S.C. § 103(a) as being unpatentable over Clabes et al. (U.S. Patent Application Publication No. 2004/0159904, hereafter "Clabes") in view of Pate (U.S. Patent Application Publication No. 2004/0080717, hereafter "Pate") and in further view of Watts (U.S. Patent No. 5,996,084, hereafter "Watts").

With this Reply, Applicant amends claims 6, 9, 14, and 19. Claims 1-23 remain pending with claims 1, 6, 9, 14, and 19 being independent.

Applicant respectfully traverses the rejection of claims 1-23 under 35 U.S.C. § 103(a) as being unpatentable over Clabes in view of Pate and in further view of Watts.

Claim 14, as amended, recites a system for analyzing operation of a chip executing an application, comprising, for example,

 circuitry on a first node, the circuitry connected to the chip and capable of:

 monitoring one or more parts of the application by a sensor attached to the chip;

 obtaining event data from the sensor, the event data including times that each of one or more sensor outputs indicates an existence of a power consumption property of the chip at a predetermined value; and

 for at least one of the parts of the application, correlating the event data with the parts of the application.

(Emphasis added). Clabes, Pate, and Watts, taken either alone or in any reasonable combination, fail to teach or suggest each and every element of claim 14.

¹ The Office Action may contain statements characterizing the related art, case law, and claims. Regardless of whether any such statements are specifically identified herein, Applicant declines to automatically subscribe to any statements in the Office Action.

In a discussion pertaining to claim 14, the Examiner acknowledged, “Clabes and Pate do not teach monitoring the application and correlating the event data with parts of the application,” (Office Action at page 4). In an effort to cure the deficiencies of Clabes and Pate, the Examiner cited Watts in asserting, “Watts teaches: monitoring one or more parts of an application [Col 3 lines 1-10; Col 13, lines 7-9; wherein CPU activity is monitored which includes application software program currently active]; and for at least one of [] the parts of the application, correlating the event data with the at least one of the parts of the application [Col 13 line 54 - Col 14 line 12; wherein the instructions of the CPU are compared to a look-up table and further correlated with thermal conditions to determine if a thermal level will be reached while processing the instructions],” (Office Action at page 4). Applicant respectively disagrees.

Watts, at column 13, lines 7-9, discloses, “THERMAL MANAGEMENT subroutine 130 continues to step 138 at which a count of the number of instructions that the CPU is to process occurs,” (emphasis added). Accordingly, Watts merely teaches counting the number of instructions to be processed by the CPU, which cannot constitute a teaching of “monitoring one or more parts of the application by a sensor attached to the chip,” as recited in claim 14.

Further, the Examiner cited Watts as allegedly teaching “correlating the event data with the parts of the application,” as recited in claim 14, to cure the deficiencies of Clabes and Pate. However, Watts cannot teach this correlating feature, at least because Watts fails to also teach or suggest “obtaining event data from the sensor,” as recited in claim 14. Applicant submits that, without “obtaining the event data from the

sensor,” it would not be possible for Watts to “[correlate] the event data with the parts of the application,” as recited in claim 14.

Specifically, Watts, at column 13, lines 58-63, discloses, “[b]y counting the number of instructions and determining their type, the present embodiment determines whether the CPU will be in a compute-bound mode of operation wherein little or no input/output and, hence, no slow-down of and no input/output function to the CPU will occur,” (emphasis added). Watts, at column 14, lines 2-6, further discloses, “[t]he look-up table provides a characterization of instruction types as ones that include an I/O function and those that have no I/O function and that only involve processing or computational operations of the CPU,” (emphasis added). Accordingly, Watts merely teaches using the look-up table to characterize the instruction types, which cannot constitute a teaching of “correlating the event data with the parts of the application,” as recited in claim 14, because “the event data [includes] times that each of one or more sensor outputs indicates an existence of a power consumption property of the chip at a predetermined value,” as also recited in claim 14.

For at least the above reasons, Clabes, Pate, and Watts, alone or in combination, fail to teach or suggest each and every element of claim 14. Claim 14 is allowable. Independent claims 6, 9, and 19, while of different scope from claim 14, recite claim features similar to those of claim 14. Accordingly, claims 6, 9, and 19 are allowable at least for the same reasons set forth above. Further, claims 7-8, 10-13, 15-18, and 20-23 depend from one of claims 6, 9, 14, and 19, and are also allowable at least due to their dependence.

Claim 1 recites a method comprising, for example, "monitoring one or more sensor outputs measuring a power consumption property of a chip; and recording a time that at least one of the sensor outputs indicates an existence of the power consumption property at a predetermined value."

In a discussion pertaining to claim 1, the Examiner acknowledged, "Clabes does not disclose a method of recording a time that the sensors output indicates an existence of a power consumption property at a predetermined value," but relied on Pate in asserting, "Pate discloses monitoring sensor outputs of a sensor [Fig. 4, 5, 6 thermal sensor mechanism] wherein each sensor output to [indicate] a measurement of the power consumption property [Page 4, [0036]], and [recording] a time that each of the outputs [Fig. 5 and 6, thermal sensing mechanism's] indicates an existence of the power consumption property [the amount of time the temperature is greater than a threshold temp T_2 is recorded] at a corresponding measurement [Page 2, [0020]]." The Examiner's assertion, however, is incorrect.

Pate discloses in paragraph [0036], "[t]he mechanism 610 thus senses the temperature of the light source 604 of the assembly 603," (emphasis added). Accordingly, Pate fails to teach or suggest "at least one of the sensor outputs [indicating] an existence of the power consumption property at a predetermined value," as recited in claim 1, because "[the] sensor outputs [measure] a power consumption property of a chip," as also recited in claim 1.

For at least this reason, Clabes and Pate, alone or in combination, fail to teach or suggest each and every element of claim 1. Claim 1 is allowable. Claims 2-5 depend from claim 1, and are also allowable at least due to their dependence.

In view of the foregoing remarks, claims 1-23 are in condition for allowance.


Accordingly, Applicant respectfully requests reconsideration of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: June 19, 2007

By: 
Linda J. Thayer
Reg. No. 45,681